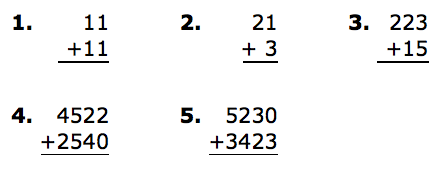
|  |  |  |
| --- | --- | --- |
| 120 min. Breakout Session 3 – Gr. 9-12 | |  |
| MO: 40 min.  A: 70 min.  C: 10 min. | Math Learning Goals  Participants will have the opportunity to discuss and explore:   * the cognitive processes, and how they impact students with learning disabilities * strategies to increase success for students with learning disabilities (e.g. creating foldables) |  |
|  | Individual 🡪 Simulations  Handout BLM 3.1.1 and BLM 3.1.2. Participants will do the Addition Table simulation, then the 3D Simulation (presented on ppt).  (more simulations available at <http://horizon-academy.org/SiteResources/Data/Templates/t2.asp?docid=621&DocName=Math%2520Difficulty%2520Simulation> )  **Small Group 🡪 Round Robin Discussion**  Participants will share responses to simulations as well as to the following questions:   * Where are the students with learning disabilities in your school (i.e. in which courses)? * What are some of the ways your math department/school/Board currently supports students with learning disabilities that you think are effective?   Each table will share 1 or 2 thoughts with the large group.  **Whole Group 🡪 F.A.T. City Videos and Discussion**  Participants will watch two FAT City videos with the focus question:   * What tips would you give secondary math teachers to help them better meet the needs of students with these types of learning disabilities?   Videos:   * Reading Comprehension (up to 2:10) <http://www.youtube.com/watch?v=WbLAt2Hc7Rw> * Reading and Decoding (up to 1:50)   <http://www.youtube.com/watch?v=Xx5kr2T7rK8>  Other videos could be referenced but not shown:   * Fairness: <http://www.youtube.com/watch?v=6G9--hUQDwY> * Processing: <http://www.youtube.com/watch?v=zhzh9kt8z7c> * Visual Perception: <http://www.youtube.com/watch?v=O4f4rX0XEBA>   Consolidate the above using a Think-Pair-Share with the following question:   * Think of a specific student you have encountered who has a learning disability, and finds learning particularly challenging.  Which of the cognitive processes pose challenges for this student?  How did that manifest itself in your classroom? | Materials   * BLM 3.1.1, 3.1.2 * 5 copies of each of these TIPS lessons (Gr9-proportions, Gr10-Trig, Gr11-probability, Gr11-Finance, Gr12-Rational functions) * white paper, coloured paper * foldables pkg * scissors, tape, glue, rulers, markers * exit cards |
| Minds On… |
| 40 min. |
|  | Individual, Pair, or Small Group 🡪 Modifying TIPS lessons  Participants choose a TIPS lesson from the samples provided. They are to review the lesson, note modifications for L.D. students already in place, and suggest additional modifications, with the cognitive processes in mind. Consolidate by having some modifications shared for each TIPS lesson.  **Individual 🡪 Creating foldables to support students with L.D.**  Introduce the idea of foldables. Show examples of templates. Handout foldables package. Participants are to select a template and create a foldable related to the TIPS lesson to support students with L.D, with the cognitive processes in mind. Consolidate with a gallery walk using the focus question:   * How might foldables help students with learning disabilities? |  |
| Action! |
| 70 min. |
|  | Individual 🡪 Exit Card  Hand out exit cards. Participants are to write 2 or 3 pieces of advice they would give to new teachers planning lessons to better meet the needs of L.D. students. |  |
| Consolidate Debrief |
| 10 min. |

**BLM 3.1.1**

Normal Addition Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 4 | 5 | 6 | 7 | 8 |
| 4 | 5 | 6 | 7 | 8 | 9 |
| 5 | 6 | 7 | 8 | 9 | 10 |

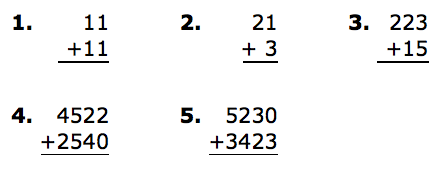
Add the following using the normal addition table



Normal Addition Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 4 | 5 | 6 | 7 | 8 |
| 4 | 5 | 6 | 7 | 8 | 9 |
| 5 | 6 | 7 | 8 | 9 | 10 |

Add the following using the normal addition table

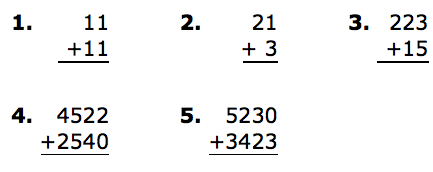


**BLM 3.1.2**

New Addition Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | 2 | 3 | 4 | 5 | 10 |
| 2 | 3 | 4 | 5 | 10 | 11 |
| 3 | 4 | 5 | 10 | 11 | 12 |
| 4 | 5 | 10 | 11 | 12 | 13 |
| 5 | 10 | 11 | 12 | 13 | 14 |

Add the following using the new addition table



New Addition Table

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 |
| 1 | 2 | 3 | 4 | 5 | 10 |
| 2 | 3 | 4 | 5 | 10 | 11 |
| 3 | 4 | 5 | 10 | 11 | 12 |
| 4 | 5 | 10 | 11 | 12 | 13 |
| 5 | 10 | 11 | 12 | 13 | 14 |

Add the following using the new addition table

